REMARKS

Claims 1, 8, and 12 have been amended. Claims 1-35 remain pending in the application. Reconsideration is respectfully requested in light of the following remarks.

Section 101 Rejection:

The Office Action rejected claims 1-19 under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter.

In regard to the § 101 rejection of claims 1-17, Applicants respectfully traverse this rejection for at least the reasons given in the response filed on December 15, 2008. In addition, Applicants refer the Examiner to at least Figures 1A and 1B, which illustrate examples of the peer-to-peer model, and page 2, lines 19-22 of the specification, which reads (emphasis added):

> Figure 1A shows two peer devices 104A and 104B that are currently connected. Either of the two peer devices 104 may serve as a client of or a server to the other device. Figure 1B shows several peer devices 104 connected over the network 106 in a peer group.

However, to expedite prosecution, claim 1 has been amended to recite "a plurality of devices implementing a plurality of peer nodes coupled to a network, wherein each of the plurality of devices implements at least one peer node," and claim 8 has been amended to recite "a plurality of devices implementing a plurality of content publisher peer nodes coupled to a network, wherein each of the plurality of devices implements at least one peer node."

Applicants thus respectfully request removal of the § 101 rejection of claims 1-7 and 8-17.

In regard to the § 101 rejection of claims 18 and 19, the Examiner asserts that the claims recite "means for implementing some functions. It is believed that these means

are software means, since the claimed subject matter is related to peer-to-peer protocols (advertising and discovering)...Therefore, the claims are directed to non-statutory subject matter." However, the elements of claims 18 and 19 are all expressed as <u>means</u> for performing a specified function. Applicants remind the Examiner that under 35 U.S.C. § 112, paragraph 6 (emphasis added):

> An element in a claim for a combination may be expressed as a means or step for performing a specified function <u>without the recital of underlying structure, material, or acts in support thereof</u>, and such claim **shall be construed to cover the corresponding structure**, material, or acts described in the specification and equivalents thereof.

Thus, by statutory definition, the means claim specifically includes structure, material, or acts in support thereof and **cannot be construed as software** *per se*.

In the Final Action of February 23, 2009, the Examiner further states "for example, claim 18 recites means to...cache. There is no explicit definition of means to cache as any structural material embodiments in the specification." Applicants refer the Examiner to at least page 173, lines 7-12, of the specification, which reads (emphasis added):

> Various embodiments may further include receiving, sending or storing instructions and/or data implemented in accordance with the foregoing description upon a carrier medium. Generally speaking, a carrier medium may include <u>storage media or memory media such as magnetic or optical media, e.g., disk or CD-ROM, volatile or non-volatile media such as RAM (e.g. SDRAM, DDR SDRAM, RDRAM, SRAM, etc.), ROM, etc</u>.

As caching involves "storing instructions and/or data" to "storage media or memory media," and material embodiments of "storage media or memory media" are clearly disclosed in the specification, **material embodiments including "means to cache" are clearly disclosed**, for example in the above citation. In addition, Applicants refer the Examiner to at least Figures 1A and 1B, which illustrate examples of the peer-to-peer model, and page 2, lines 19-22 of the specification, which reads (emphasis added):

> Figure 1A shows two peer <u>devices</u> 104A and 104B that are currently connected. Either of the two peer <u>devices</u> 104 may serve as a client of or a

server to the other device. Figure 1B shows several peer <u>devices</u> 104 connected over the network 106 in a peer group.

The Examiner goes on to assert "Furthermore, means to cache can be read as a software sequence for saving or caching contents." **Again, by statutory definition, the means claim specifically includes structure, material, or acts in support thereof and cannot be construed as software** _per se_.

Therefore, for at least the reasons presented above, the § 101 rejection of claims 18 and 19 is improper and removal thereof is respectfully requested.

Section 112, Second Paragraph, Rejections:

The Examiner rejected claims 1 and 12 under 35 U.S.C. § 112, second paragraph, as being indefinite.

In regard to the § 112 rejection of claim 1, the Examiner asserts that it is "unclear whether [the peer node on line 4] corresponds to the publisher peer node or the at least one of the plurality of peer nodes. It is not necessary that 'the peer node' is the 'publisher peer node' on line 3." Applicants respectfully traverse this rejection for at least the reason that it is clear from the language of the claims that the at least one of the plurality of peer nodes <u>is</u> the publisher peer node, and 'the peer node' on line 4 clearly refers to the 'at least one of the plurality of peer nodes' on line 3. However, to expedite prosecution, claim 1 has been amended to recite "at least one of the plurality of peer nodes<u>, wherein each of the at least one of the plurality of peer nodes is</u> configured as a publisher peer node for a plurality of contents cached on the <u>respective</u> peer node."

Therefore, for at least the reasons presented above, Applicants respectfully request removal of the § 112 rejection of claim 1.

In regard to claim 12, the Examiner further contends that "It is vague why the claim requires an edge node to be closer to 'other peer nodes' than the primary

publisher." Applicants respectfully traverse the assertion that "no information is provided for the other peer nodes." Information is provided for the other peer nodes: if the edge content publisher peer node is logically closer to the other peer nodes than is the primary content publisher peer node, then the other peer nodes are <u>obviously</u> logically closer to the edge content publisher peer node than they are to the primary content publisher peer node. Contrary to the Examiner's assertion, the claim is not at all vague as to "why" node A is logically closer to node B than it is to node C. Anyone of ordinary skill in the art would understand what the claims language means. Further, the specification clearly defines what is meant by "logically closer", for example at page 13, lines 4-10 and page 15, lines 16-21.

The Examiner further asserts "as best understood by the examiner, the invention is to locate a closest peer node, regardless for that peer node being a primary or an edge peer, to provide cached content." Claim 12 is consistent with the Examiner's understanding, with the distinction of locating a *logically* closest peer node. In the case of claim 12, the logically closest peer node to the other peer nodes recited in the claim is the edge content publisher peer node and not the primary content publisher peer node.

In the Final Action of February 23, 2009, the Examiner asserts "Applicant argues that the closer node happens to be the edge node…Thus, the last wherein limitation can be read as an intended use and can be given no weight in the examining process. That an edge peer node is closer to other peer nodes than a primary publisher is vague as to why the edge node is closer and not the primary publishing node, given that no means for measuring closeness is recited in the claim." Applicants traverse the Examiner's assertions for at least the reasons given above. **Again, the specification clearly defines what is meant by "logically closer", for example at page 13, lines 4-10 and page 15, lines 16-21.** If one skilled in the art would understand the bounds of the claim when read <u>in light of the specification</u>, then the claim satisfies section 112 paragraph 2. *Miles Labs., Inc. v. Shandon, Inc.*, 27 USPQ2d 1123, 1126 (Fed. Cir. 1993). "We have not insisted that claims be plain on their face in order to avoid condemnation for indefiniteness; rather, what we have asked is that the claims be amenable to construction, however

difficult that task may be." *Exxon Research & Eng'g Co. v. U.S.*, 60 USPQ2d 1272, 1276 (Fed. Cir. 2001). "If the meaning of the claim is discernible, even though the task may be formidable and the conclusion may be one over which reasonable persons will disagree, we have held the claim sufficiently clear to avoid invalidity on indefiniteness grounds." *Id.*

However, to expedite prosecution, claim 12 has been amended to recite "publish the received plurality of contents for access by <u>one or more of</u> the other peer nodes on the network <u>for which the edge content publisher peer node is logically nearer to the one or more of the other peer nodes than the primary content publisher peer node such that communications over the network between the edge content publisher peer node and the other peer node take less time than communications over the network between the primary content publisher peer node and the other peer node regardless of physical proximity.</u>"

Therefore, for at least the reasons presented above, Applicants respectfully request removal of this § 112 rejection of claim 12.

Section 103(a) Rejections:

The Examiner rejected claims 1, 6, 7, 20, 25-27 and 33-35 under 35 U.S.C. § 103(a) as being unpatentable over Burbeck et al. (U.S. Publication 2003/0217139) (hereinafter "Burbeck") in view of Krishnan ("The JXTA Solution to P2P"). Applicants note that the Examiner appears to have intended to include **claim 28** in this rejection. Applicants respectfully traverse this rejection for at least the reasons below.

In regard to claim 1, the cited art <u>teaches away from</u> the Examiner's proposed combination of Krishnan with Burbeck.

Krishnan is clearly directed at JXTA™ technology from Sun Microsystems, Inc. The title of Krishnan's paper is "The Jxta solution to P2P," and the subtitle states "Sun's

new network computing platform establishes a base infrastructure for peer-to-peer application development." However, **Burbeck clearly and explicitly** *teaches away* **from the use of JXTA**. In the "Description of the Related Art" section beginning at paragraph [0004], Burbeck introduces P2P networks, and then in paragraph [0005] states "Prior art P2P network programs provide facilities for dynamic query and discovery of peers. However, the existing techniques suffer from several drawbacks." In paragraphs [0005]-[0010], Burbeck goes on to recite the several drawbacks that Burbeck perceives in "conventional P2P systems." In paragraph [0007], page 1, lines 7-17, Burbeck provides Sun's JXTA as an example of a "conventional P2P system." ("The JXTA project from Sun Microsystems, Inc. is a P2P architecture...") At paragraph [0011], Burbeck states (emphasis added): "What is needed are techniques for capitalizing on the advantages and potential of P2P networks, while avoiding the drawbacks and limitations of existing approaches," and in paragraph [0012] Burbeck states (emphasis added): "An object of the present invention is to provide techniques for capitalizing on the advantages and potential of P2P networks, while avoiding the drawbacks and limitations of existing approaches." Thus, Burbeck is clearly directed at attempting to provide a P2P system that is different and distinct from "conventional P2P systems," in which Burbeck includes JXTA as an example. Furthermore, at paragraph [0166], Burbeck further disparages JXTA.

From the above, it is clear that Burbeck actually teaches away from the use of JXTA as disclosed by Krishnan. "It is improper to combine references where the references teach away from their combination." *In re Grasselli*, 218 USPQ 769, 779 (Fed. Cir. 1983). Thus, the Examiner's proposed combination of Krishnan's teachings with Burbeck's system is improper, and one of skill in the art would not combine Krishnan with Burbeck in the manner proposed by the Examiner.

In further regard to claim 1, contrary to the Examiner's assertion, the cited art fails to teach or suggest at least one of the plurality of peer nodes configured as a publisher peer node for a plurality of contents cached on the peer node, wherein each publisher peer node is configured to publish one or more advertisements on the network, wherein each advertisement corresponds to a specific one of the plurality

of contents cached on the peer node, and wherein each advertisement includes information for requesting the specific corresponding content.

The Examiner cites Burbeck, paragraph [0023], lines 1-3, in support of the assertion that the cited art teaches *wherein each publisher peer node is configured to publish two or more advertisements on the network, wherein each advertisement corresponds to "the plurality of contents"* [**the Examiner's words**] *cached on the peer node.* The citation states (emphasis added):

> Preferably, as each node as it enters the network, it broadcasts <u>a message</u> to advertise (inter alia) what content the node holds.

This broadcast message corresponds to the "alive" message that a node broadcasts to advertise its presence on the network, e.g. at startup time (*see, e.g.,* paragraph [0111]). Thus, Burbeck's nodes send a single "alive" message that 1) advertises the node's presence; and 2) collectively advertises <u>all</u> content the node holds. In contrast, claim 1 recites that each publisher peer node publishes advertisements on the network, and each of the published advertisements corresponds to a <u>specific one</u> of the contents cached on the peer node. Thus, in claim 1 of the instant application, there is a one-to-one correspondence between an advertisement and a <u>specific</u> corresponding content, and each advertisement is published on the network independently. Thus, each content is published independently in claim 1, in contrast to Burbeck in which one "alive" message is broadcast to advertise what content the node holds.

In the Action dated September 15, 2008, the Examiner relies on Krishnan to teach *wherein each advertisement corresponds to a specific one of the plurality of contents cached on the peer node, and wherein each advertisement includes information for requesting the specific corresponding content.* The Examiner asserts that Krishnan discloses "each advertisement corresponds to one codat", citing page 5, codats and advertisements, and "therefore enables requesting a specific content." However, Burbeck's system clearly <u>relies</u> on a single "alive" message that a node broadcasts to advertise its presence and content on the network, e.g. at startup time (*see, e.g.,* paragraph [0023] and paragraph [0111]). Thus, Burbeck's nodes purposefully send a single "alive"

message that 1) advertises the node's presence; and 2) collectively advertises <u>all</u> content the node holds. Modifying the teachings of Burbeck with the teachings of Krishnan to "enable requesting a specific content" in accordance with Krishnan, if possible, would clearly **change the principle of operation of Burbeck. Thus, the Examiner's proposed combination of Burbeck and Krishnan is improper.** "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

In the Response to Arguments section, of the Final Action of February 23, 2009, in regard to Applicants' above arguments, the Examiner simply repeats the previous assertion regarding Krishnan and argues that "It would be obvious that the modification would not change the principle of Burbeck's invention, as one skilled in the art appreciates that advertising contents in one advertisement or in a separate advertisement is an obvious modification of Burbeck's." (Page 2, section (5)). The Examiner's argument is essentially that "it would be obvious that modifying Burbeck with Krishnan would not change the principle of Burbeck's invention because it would be obvious to modify Burbeck's invention with Krishnan." **The Examiner's argument is clearly circular.** A circular argument is an argument that commits the logical fallacy of <u>assuming what it is attempting to prove</u>, which the Examiner's argument clearly does. Thus, the Examiner's argument carries no weight and is non-responsive to Applicants' argument that modifying Burbeck with Krishnan would change the principle of operation of Burbeck.

Furthermore, as Applicants have explained above, Burbeck clearly and explicitly <u>teaches away</u> from the Examiner's proposed combination of Krishnan with Burbeck. Thus, the Examiner's proposed combination is improper.

In further regard to claim 1, the cited art fails to teach or suggest that to publish the one or more advertisements on the network the publisher peer node is

configured to send the one or more advertisement to a rendezvous peer node, wherein the rendezvous peer node caches the one or more advertisements.

In the Action dated September 15, 2008, the Examiner relies upon Krishnan to teach this limitation. However, in Burbeck there is clearly no concept of a rendezvous peer that caches advertisements from a publisher peer. In addition, as noted above, Burbeck relies on a single "alive" message that a node broadcasts to advertise its presence and content on the network, and modifying Burbeck with Krishnan in the manner proposed by the Examiner, if possible, would change the principle of operation of Burbeck, and therefore the proposed combination is improper. Furthermore, as noted, Burbeck <u>relies</u> on a single "alive" message that <u>a node broadcasts to advertise its presence and content on the network</u>, e.g. at startup time. Modifying Burbeck with Krishnan in the manner proposed by the Examiner to include "rendezvous nodes" that cache advertisements, if possible, would clearly change the principle of operation of Burbeck. **Thus, the Examiner's proposed combination of Burbeck and Krishnan is improper.** "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

In the Response to Arguments section, of the Final Action of February 23, 2009, in regard to Applicants' above arguments, the Examiner asserts "[Applicants'] argument regarding a rendezvous peer node and its functionalities such as providing discovery of advertisements to other peer nodes is vague since the examiner relied on Krishnan, not Burbeck, to explain rendezvous peer node's functionalities." **Applicants understand, and acknowledged in the above argument, that the Examiner relies on Krishnan to teach the features of rendezvous nodes.** Contrary to the Examiner's assertion that Applicants' arguments are "vague," Applicants' arguments given above are quite clear: Modifying Burbeck with Krishnan in the manner proposed by the Examiner to include "rendezvous nodes" that cache advertisements, if possible, would clearly change the

principle of operation of Burbeck. Thus, the Examiner's proposed combination of Burbeck and Krishnan is improper.

Thus, the Examiner has not substantively responded to Applicants' actual argument that modifying Burbeck with Krishnan's rendezvous nodes would change the principle of operation of Burbeck.

Furthermore, as Applicants have explained above, Burbeck clearly and explicitly teaches away from the Examiner's proposed combination of Krishnan with Burbeck. Thus, the Examiner's proposed combination is improper.

In further regard to claim 1, contrary to the Examiner's assertion, the cited art fails to teach or suggest at least a subset of the plurality of peer nodes each configured to: discover published advertisements on the network; and request one or more specific contents each corresponding to one of the discovered advertisements in accordance with the information included in the respective advertisements.

The Examiner cites Burbeck, paragraph [0023], lines 3-5, which reads:

The technique may further comprise: requesting, by a node receiving the broadcast message, a particular content resource from the broadcasting node

Burbeck does not teach discovery of published advertisements on the network. Instead, Burbeck teaches that a node broadcasts a message to advertise what content the node holds. Another node may then receive the broadcast "alive" message. Simply receiving a broadcast message is not the same as a node discovering published advertisements. Moreover, as noted above, Burbeck's system relies on this disclosed method.

In addition, the citation from Burbeck (paragraph [0023]) and Burbeck in general does not teach that a peer node is configured to request one or more specific contents

each corresponding to one of the discovered advertisements <u>in accordance with the information included in the respective advertisements</u>. FIG. 11 of Burbeck is a flowchart of Burbeck's method of a node as requesting content from its peers, and FIG. 11 is described in the specification beginning at paragraph [0124]. Burbeck's method for requesting content is clearly and distinctly different than what is recited in claim 1 of the instant application. In the method, Burbeck does <u>not</u> teach that a node requests a specific content corresponding to a discovered advertisement <u>in accordance with information included in that advertisement</u>. **Specifically, Burbeck does not teach that a node requests a specific content from a particular node in accordance with information in an "alive" message, which the Examiner has equated to Applicants' "advertisements", received from that node.** Instead, Burbeck teaches in FIG. 11 and the accompanying discussion that a node sends or broadcasts a query request to <u>multiple</u> nodes or peers and waits for response messages to the query message (paragraphs [0124] – [0130]). The query request does not request the content, but instead requests nodes to respond that may be able to satisfy the query. The requesting node then processes meta-data from the response messages (paragraph [0131]), after which a "user" evaluates the meta-data from the collection of responding nodes to identify a peer that best satisfies the query. A request for the content is then sent to the identified peer.

In the Response to Arguments section, of the Final Action of February 23, 2009, in regard to Applicants' above arguments, the Examiner simply "disagrees" and re-asserts that "Burbeck teaches this feature in [0023] lines 3-5," and "nodes receiving the advertisement can request content according to the advertisement." **The Examiner does not respond substantively to any of Applicants' above arguments.** Moreover, the Examiner is singling out one feature and ignoring the feature in the full context of the claim. Again, **Burbeck does not teach <u>discovery</u> of published advertisements on the network.** Instead, Burbeck teaches that a node broadcasts <u>a message</u> to advertise what content the node holds. Another node may then receive the broadcast "alive" message. Simply receiving a broadcast message is not the same as a node <u>discovering</u> published advertisements. Burbeck's system relies on this disclosed method. In addition, Burbeck does not teach that a node requests a specific content from a particular node in

accordance with information in an "alive" message, which the Examiner has equated to Applicants' "advertisements", received from that node. Again, the Examiner's response does not include anything to counter Applicants' actual arguments; the Examiner is simply re-asserting his prior assertion, and moreover is not addressing the limitations of claim 1 as a whole.

In the Action dated September 15, 2008, the Examiner relies upon Krishnan to teach *at least a subset of the plurality of peer nodes, wherein each peer node in the subset is configured to discover published advertisements on the network from the rendezvous peer node by accessing the rendezvous peer node.* However, as noted above, Burbeck teaches, and relies on, a distinctly different method. Burbeck specifically teaches in FIG. 11 and the accompanying discussion that a node sends or broadcasts a query request to multiple nodes or peers and waits for response messages to the query message (paragraphs [0124] – [0130]). The query request does not request the content, but instead requests nodes to respond that may be able to satisfy the query. The requesting node then processes meta-data from the response messages (paragraph [0131]), after which a "user" evaluates the meta-data from the collection of responding nodes to identify a peer that best satisfies the query. A request for the content is then sent to the identified peer. Modifying Burbeck with Krishnan in the manner proposed by the Examiner to include "rendezvous nodes" as recited in claim 1, if possible, would clearly change the principle of operation of Burbeck. **Thus, the Examiner's proposed combination of Burbeck and Krishnan is improper.** "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

Furthermore, the Examiner has not stated a proper reason to combine the teachings of the cited art. The Examiner asserts that it would have been obvious to combine the teachings of Krishnan with the teachings of Burbeck "to discover advertisements through rendezvous nodes so that service or content requests can be resolved efficiently." However, as noted above, Burbeck actually teaches away from the

Examiner's proposed combination of Krishnan with Burbeck. "It is improper to combine references where the references teach away from their combination." *In re Grasselli*, 218 USPQ 769, 779 (Fed. Cir. 1983). Furthermore, modifying Burbeck with Krishnan in the manner proposed by the Examiner to include "rendezvous nodes" as recited in claim 1, if possible, would clearly **change the principle of operation of Burbeck**. Thus, the Examiner's proposed combination of Burbeck and Krishnan is improper. "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). Thus, one of ordinary skill would not have combined the teachings of Krishnan with the teachings of Burbeck in the manner proposed by the Examiner. Accordingly, the Examiner has failed to establish a *prima facie* case of obviousness. Moreover, the Examiner's stated reason to combine the reference is merely conclusory.

In the Response to Arguments section, of the Final Action of February 23, 2009, in regard to Applicants' above arguments, the Examiner only repeats the assertion that it would have been obvious to combine the teachings of Krishnan with the teachings of Burbeck "to discover advertisements through rendezvous nodes so that service or content requests can be resolved efficiently." **The Examiner does not respond substantively to any of Applicants' above arguments.**

Thus, for at least the reasons presented above, the rejection of claim 1 is not supported by the cited art and removal thereof is respectfully requested.

In regard to claim 20, the Examiner's assertion that Burbeck discloses *one of the other peer nodes ...publishing the received particular content for access by the other peer nodes on the network* is not supported by the Examiner's citation and argument. The Examiner cites Burbeck, paragraph [0118], and asserts "receiving peers further broadcasting advertisements to other peers." Paragraph [0118] describes a node's initial "alive" message being propagated on a network, and "alive" messages from other nodes being responsively returned to the broadcasting node so that the new node (upon entering

the network) can "dynamically learn the P2P network topology." The paragraph clearly does not describe, and is not at all directed at or even suggestive of, one of the other peer nodes receiving contents from a primary content publisher peer node and responsively publishing the received contents for access by the other peers nodes.

Moreover, nowhere in the citation or elsewhere does Burbeck teach or suggest a node publishing a <u>received *particular* content</u> for access by other peer nodes.

In the Action dated September 15, 2008, the Examiner relies upon Krishnan to teach "a plurality of separately user-requestable contents", citing page 5, codats, or contents; and advertisements, each advertisement message corresponds to a particular content. However, as noted above in regard to claim 1, Burbeck actually <u>teaches away</u> from the Examiner's proposed combination of Krishnan with Burbeck. "It is improper to combine references where the references teach away from their combination." *In re Grasselli*, 218 USPQ 769, 779 (Fed. Cir. 1983). Furthermore, as noted above in regard to claim 1, modifying Burbeck with Krishnan in the manner proposed by the Examiner, if possible, would clearly change the principle of operation of Burbeck. Thus, the Examiner's proposed combination of Burbeck and Krishnan is improper. "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). Thus, one of ordinary skill would not have combined the teachings of Krishnan with the teachings of Burbeck in the manner proposed by the Examiner. Accordingly, the Examiner has failed to establish a *prima facie* case of obviousness. Moreover, the Examiner's stated reason to combine the reference is merely conclusory.

In the Response to Arguments section, of the Final Action of February 23, 2009, in regard to Applicants' above arguments, the Examiner asserts "For claim 20, similar arguments are presented and are moot in view of the rationale above." As Applicants noted in response to the Examiner's assertions from the Final Action in regard to claim 1,

none of the Examiner's responses are substantive, and none of the Examiner's responses carry any argumentative weight. In addition, the Examiner simply repeats the assertion that Krishnan teaches the above limitations, and asserts "receiving and caching single particular content resource would be obvious" without providing any support or reasoning for this assertion. **The Examiner clearly does not respond substantively to Applicants' above arguments.**

Thus, for at least the reasons presented above, the rejection of claim 20 is not supported by the cited art and removal thereof is respectfully requested. Similar remarks as those above regarding claim 20 also apply to claim 28.

The Examiner rejected claims 12-14 under 35 U.S.C. § 103(a) as being unpatentable over Burbeck in view of Leber et al. (U.S. Publication 2003/0233455) (hereinafter "Leber"). Applicants respectfully traverse this rejection for at least the reasons below.

In regard to claim 12, contrary to the Examiner's assertion, the cited art does not disclose an edge content publisher peer node configured to receive the user-requestable contents from the primary content publisher peer node and cache the received contents.

The Examiner cites Burbeck, paragraph [0023], lines 8-10. Paragraph [0023] states:

> The technique may further comprise: requesting, by a node receiving the broadcast message, a particular content resource from the broadcasting node; receiving the requested content resource at the requesting node, along with a reference to the holding node's directed graph for that content resource; storing the received content resource in a local content repository; and storing a local copy of the directed graph for the received content resource.

In the citation, Burbeck is describing a "technique" that comprises a node requesting <u>a particular content resource</u> from a broadcasting node, receiving the <u>particular</u>

content resource, and storing the <u>particular content resource</u>. In contrast, claim 12 recites an edge content publisher node receiving a <u>plurality of contents</u> from a primary content publisher peer node and caching the received <u>plurality of contents</u>. Claim 12 recites receiving a <u>plurality of contents</u>, i.e. more than one content, while the citation from Burbeck is describing requesting and receiving a **single, particular content resource**.

The Examiner does not provide arguments in response to the above in the Final Action of February 23, 2009.

Further in regard to claim 12, the cited art does not teach or suggest that the edge content publisher peer node is logically closer to the other peer nodes on the network than the primary content publisher.

The Examiner asserts "requesting peer caches received content is an edge peer node" (citing paragraph [0023]). However, nowhere does Burbeck state that that the edge content publisher peer node is logically closer to the other peer nodes on the network than the primary content publisher.

The Examiner does not provide arguments in response to the above in the Final Action of February 23, 2009.

In the Action dated September 15, 2008, the Examiner relies upon Leber to teach *wherein the edge content publisher peer node is logically closer to the other peer nodes on the network than the primary content publisher.* The Examiner cites Leber, Abstract, Fig. 6, steps 615-640, and paragraph [0098]. Leber discloses, in the Abstract (emphasis added):

> The method involves sending a request for a file <u>to the server computer</u>; receiving back from the server an authentication code and a list of peer client computers that have the requested file or part of it; sending a request for the file to a <u>subset of peer clients</u> that yield the fastest download rate; receiving file data back <u>from this subset of peer clients</u>; <u>reassembling the requested file using data sent by the peer clients</u>; and checking the integrity and completeness of the reconstructed file by comparing a

computed checksum of said reconstructed file with the authentication code.

The above description from Leber's Abstract is consistent with Fig. 6 and the description thereof found in paragraphs [0096] through [0106]. From the above, Leber does not disclose an edge content publisher peer node that is logically closer to the other peer nodes on the network than the primary content publisher. Instead, Leber discloses a method for receiving file data from a plurality of peer clients. In paragraph [0033], Leber actually states (emphasis added):

> Additionally, the present invention **eliminates** the requirement for a user to download an entire file from a single source and instead provides a system and a method for the transfer of multiple parts of a file from a plurality of peer client computers.

In the Response to Arguments section, of the Final Action of February 23, 2009, in regard to Applicants' above argument, the Examiner asserts "Applicant argues that it is required for Leber's node to receive content from a plurality of clients. This argument is vague." First, Applicants have not explicitly argued that "it is required for Leber's node to receive content from a plurality of clients." The Examiner is misconstruing or misunderstanding Applicants' actual argument, which is that Leber clearly discloses a system and method for receiving file data from a plurality of peer client computers, and contrary to the Examiner's assertion, Leber does not disclose an edge content publisher peer node that is logically closer to the other peer nodes on the network than the primary content publisher as recited in Applicants' claims. Moreover, Applicants fail to see how the Examiner could consider the above citation from paragraph [0033] of Leber "vague." In the citation, Leber explicitly states: "the present invention eliminates the requirement for a user to download an entire file from a single source and instead provides a system and a method for the transfer of multiple parts of a file from a plurality of peer client computers."

The Examiner goes on to assert "Leber's method is to identify a logically nearest node to provide content to requesting nodes." The Examiner is misconstruing or misinterpreting Leber's method as actually disclosed. Leber does not disclose an edge

content publisher peer node that is logically closer to the other peer nodes on the network than the primary content publisher. Instead, Leber discloses a method for receiving file data from a <u>plurality of peer client computers</u>. In traversal of the Examiner's interpretation of Leber's method, Applicants provide Leber's Abstract (emphasis added):

> A distributed file sharing system and a <u>method for providing fast download of data from **multiple data storage mediums**</u>. The system combines a network of peer client computers which provide data through optimized peer-to-peer communication links, and a server computer which provides an authentication code for checking the completeness and integrity of the downloaded data. The method involves sending a request for a file to the server computer; receiving back from the server an authentication code and a <u>list of peer client computers</u> that have the requested file or part of it; sending a request for the file to a <u>subset of peer clients</u> that yield the fastest download rate; <u>receiving file data back from this subset of peer clients</u>; <u>reassembling</u> the requested file using data sent by the peer clients; and checking the integrity and completeness of the reconstructed file by comparing a computed checksum of said reconstructed file with the authentication code.

Further, Applicants again refer the Examiner to Leber, paragraph [0033]: "the present invention **eliminates** <u>the requirement for a user to download an entire file from a single source</u> and instead <u>provides a system and a method for the transfer of multiple parts of a file from a plurality of peer client computers</u>."

The Examiner goes on to assert "There is no requirement that fastest responsive client in fig. 6 of Leber has to be a plurality of clients, instead it can be a single fastest client." In paragraphs [0098]-[0099], referring to FIG. 6, Leber teaches (emphasis added): "Subroutine 615 selects a subset of peer client computer<u>s</u>," and "Module 620 sends a message to the subset of peer client computer<u>s</u> selected by subroutine 615." Thus, contrrary to the Examiner's assertion, Lebers' actual teaching requires multiple peer client computers. Moreover, the Examiner's contention that "There is no requirement that fastest responsive client in fig. 6 of Leber has to be a plurality of clients, instead it can be a single fastest client" is contrary to Leber's teaching in the Abstract of "a method for providing fast download of data from **multiple data storage mediums**" and in paragraph [0033] that "the present invention **eliminates** <u>the requirement for a user to download an entire file from a single source</u> and instead <u>provides a system and a</u>

method for the transfer of multiple parts of a file from a plurality of peer client computers." The notion of "a single fastest client" would be contrary to the clearly stated purpose of Leber's actual method and system.

Furthermore, contrary to the Examiner's assertion in the Final Action, Leber's teaching is clearly not "completely analogous to applicant's invention that primary publisher peer and edge peer nodes cache same content but only a closest peer node will provide content to requested peers." Again, Leber clearly teaches the transfer of multiple parts of a file from a plurality of peer client computers, and thus clearly teaches counter to the notion of "only a closest peer node will provide content to requested peers."

Furthermore, from the above, for example paragraph [0033], Leber actually appears to teach away from a content stored on a single source (e.g., Burbeck's "broadcasting node" or "requesting/receiving node" in paragraph [0023] or an edge content publisher peer node as recited in claim 12), instead teaching that portions of a content is distributed among a plurality of peer client computers, and to thus *teach away* from what Burbeck teaches and from and edge content publisher peer node as recited in claim 12.

In the Response to Arguments section, of the Final Action of February 23, 2009, in regard to Applicants' above argument that Leber actually appears to teach away from a content stored on a single source, the Examiner asserts "it is vague since Leber clearly does not exclude in his invention a file or content to be stored on a plurality of nodes such as a primary publisher and edge node." Again, Burbeck clearly teaches that a content is stored on a single source (e.g., Burbeck's "broadcasting node" or "requesting/receiving node" in paragraph [0023] or an edge content publisher peer node as recited in claim 12). In contrast, Leber teaches, and is directed at, storing portions of a content distributed among a plurality of peer client computers. In paragraph [0033], Leber clearly states "the present invention eliminates the requirement for a user to download an entire file from a single source and instead provides a system and a method for the transfer of multiple parts of a file from a plurality of peer client computers." Thus, Leber actually teaches

away from storing a content on a single source, as relied on by Burbeck, and as recited in claim 12. Contrary to the Examiner's assertion, this argument is not at all "vague."

In further regard to claim 12, the Examiner's assertion that Burbeck discloses *an edge content publisher peer node configured to…publish the received contents for access by the other peer nodes on the network* **is not supported by the Examiner's citation and argument.** The Examiner cites paragraph [0118], and asserts "receiving peers further broadcasting advertisements to other peers." Paragraph [0118] describes a node's initial "alive" message being propagated on a network, and "alive" messages from other nodes being responsively returned to the broadcasting node so that the new node (upon entering the network) can "dynamically learn the P2P network topology." The paragraph does <u>not</u> describe, and is not at all directed at or even suggestive of, an edge content publisher peer node receiving contents from a primary content publisher peer node and responsively publishing the received contents.

In the Response to Arguments section, of the Final Action of February 23, 2009, in regard to Applicants' above argument, the Examiner repeats the assertion that Burbeck teaches the above limitations, asserting that Burbeck "teaches a (edge) node receiving the advertised content can store and propagate the alive message or advertisement of the content to further nodes," citing paragraphs [0023] and [0118]. However, the "alive" message which Burbeck teaches is propagated on a network in paragraph [0118] <u>only</u> <u>includes "advertisements" for content on the node from which the message originated</u>. In Burbeck's system, a second node that received an alive message from a first node and propagates the alive message to other nodes **would not be advertising content on the second node**. Instead, the propagated "alive" message only advertises the first node and content on the first node. In paragraph [0023], Burbeck is describing a "technique" that comprises a node requesting a particular content resource from a broadcasting node, receiving the particular content resource, and storing the particular content resource. This has nothing to do with the content in paragraph [0118] describing propagating alive messages, and even if the second node were to do what is described in paragraph [0023], the subject matter in paragraph [0118] would still not involve the second node advertising

content stored on the second node. Again, **the Examiner's assertion that Burbeck discloses** *an edge content publisher peer node configured to...publish the received contents for access by the other peer nodes on the network* **is not supported by the Examiner's citations and arguments.** Paragraph [0118] of Burbeck does not involve and does not teach publishing received contents for access by other peer nodes, but instead simply involves propagating received "alive" messages; furthermore, paragraphs [0023] and [0118] in combination do not teach these limitations.

In addition, modifying Burbeck with Leber's disclosed method of receiving file data from a <u>plurality of peer clients</u> in the manner proposed by the Examiner, if possible, would clearly change the principle of operation of Burbeck. Thus, the Examiner's proposed combination of Burbeck and Leber is improper. "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). Thus, one of ordinary skill would not have combined the teachings of Leber with the teachings of Burbeck in the manner proposed by the Examiner. Accordingly, the Examiner has failed to establish a *prima facie* case of obviousness. Moreover, the Examiner's stated reason to combine the reference is merely conclusory.

Thus, for at least the reasons presented above, the rejection of claim 12 is not supported by the cited art and removal thereof is respectfully requested.

The Examiner rejected claims 16 and 17 under 35 U.S.C. § 103(a) as being unpatentable over Burbeck, Leber and further in view of Krishnan. Since the rejection has been shown to be unsupported for the independent claims, a further discussion of these rejections is not necessary at this time. In addition, as noted above in regard to claim 1, Burbeck actually <u>teaches away</u> from the Examiner's proposed combination of Krishnan with Burbeck. "It is improper to combine references where the references teach away from their combination." *In re Grasselli*, 218 USPQ 769, 779 (Fed. Cir. 1983).

The Examiner rejected claims 2-5, 8-11, 18, 19, 21-23 and 29-31 under 35 U.S.C. § 103(a) as being unpatentable over Burbeck in view of Krishnan and further in view of Leber. **In regard to claim 8,** in the Action dated September 15, 2008, the Examiner relies upon Krishnan to teach "a plurality of separately user-requestable contents", citing page 5, codats, or contents; and advertisements, each advertisement message corresponds to a particular content. However, as noted above in regard to claim 1, Burbeck actually teaches away from the Examiner's proposed combination of Krishnan with Burbeck. "It is improper to combine references where the references teach away from their combination." *In re Grasselli,* 218 USPQ 769, 779 (Fed. Cir. 1983). Furthermore, as noted above in regard to claim 1, modifying Burbeck with Krishnan in the manner proposed by the Examiner, if possible, would clearly change the principle of operation of Burbeck. Thus, the Examiner's proposed combination of Burbeck and Krishnan is improper. "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." *In re Ratti,* 270 F.2d 810, 123 USPQ 349 (CCPA 1959). Thus, one of ordinary skill would not have combined the teachings of Krishnan with the teachings of Burbeck in the manner proposed by the Examiner. Accordingly, the Examiner has failed to establish a *prima facie* case of obviousness. Moreover, the Examiner's stated reason to combine the reference is merely conclusory.

In further regard to claim 8, the Examiner relies upon Leber to teach *receive the particular content from a logically nearest content publisher peer node of the plurality of content publisher peer nodes on the network, wherein a logically nearest peer node is a peer node to which communications over the network take the least time.* The Examiner cites Leber, Abstract, Fig. 6, steps 615-640, and paragraph [0098]. Leber discloses, in the Abstract (emphasis added):

> The method involves sending a request for a file to the server computer; receiving back from the server an authentication code and a list of peer client computers that have the requested file or part of it; sending a request for the file to a subset of peer clients that yield the fastest download rate; receiving file data back from this subset of peer clients; reassembling the requested file using data sent by the peer clients; and checking the

integrity and completeness of the reconstructed file by comparing a computed checksum of said reconstructed file with the authentication code.

The above description from Leber's Abstract is consistent with Fig. 6 and the description thereof found in paragraphs [0096] through [0106]. From the above, Leber does not disclose receiving the particular content from <u>a logically nearest content publisher peer node</u> of the plurality of content publisher peer nodes on the network. Instead, Leber discloses receiving file data from a <u>plurality of peer clients</u>. In paragraph [0033], Leber actually states (emphasis added):

> Additionally, the present invention **eliminates** <u>the requirement for a user to download an entire file from a single source</u> and <u>instead provides a system and a method for the transfer of multiple parts of a file from a plurality of peer client computers</u>.

From the above, Leber actually appears to <u>teach away</u> from downloading "an entire file" from a single source, and to thus teach away from what Burbeck teaches and from what is recited in claim 8.

Furthermore, Leber's disclosed method **requires** <u>sending a request for a file to a server computer</u>. However, Burbeck's method for requesting content is incompatible with what Leber describes, and does not employ sending a request to a server at any point. In his method, Burbeck does <u>not</u> teach that a node sends a request for a file to a server computer, receiving back from the server an authentication code and a list of peer client computers that have the requested file or part of it. Instead, Burbeck teaches in FIG. 11 and the accompanying discussion that a node must send or broadcast a query request to <u>multiple</u> nodes or peers and waits for response messages to the query message (paragraphs [0124] – [0130]). The query request does not request the content, but instead requests nodes to respond that may be able to satisfy the query. The requesting node then processes meta-data from the response messages (paragraph [0131]), after which a "user" evaluates the meta-data from the collection of responding nodes to identify a single peer that best satisfies the query. A request for the content is then sent to the identified peer.

Furthermore, Burbeck discloses, in paragraph [0138], "In addition, the traversal path will be extended to include the current node as the latest target node in the directed graph (that is, by creating a new <arc> element of the form shown at 735 in FIG. 7)." Burbeck, as previously mentioned, discloses a directed graph for tracking the traversal of content resources across nodes. It is not at all clear how Leber's system and a method for the transfer of <u>multiple parts of a file from a plurality of peer client computers</u> would or <u>could</u> be combined with Burbeck's system while maintaining Burbeck's disclosed elements, e.g. the directed graph for tracking the traversal of content resources across nodes.

Furthermore, the Examiner has not stated a proper reason to combine the teachings of the cited art. The Examiner asserts that it would have been obvious to combine the teachings of Burbeck-Krishnan with the teachings of Leber "to provide peer-to-peer services from the peer where the service is available with the best QoS in order to save unnecessary long distance communications costs." The Examiner's reason is not found in either of the cited references, nor in any other evidence of record. The Examiner's reason is not supported by any evidence of record and can thus only be found in hindsight. **Moreover, the references actually <u>teach away</u> from their combination.** As noted above in regard to claim 1, Burbeck actually <u>teaches away</u> from the Examiner's proposed combination of Krishnan with Burbeck. Furthermore, Leber states that Leber's invention "**<u>eliminates</u>** <u>the requirement for a user to download an entire file from a single source</u> and <u>instead provides a system and a method for the transfer of multiple parts of a file from a plurality of peer client computers</u>," while Burbeck's system, e.g. the directed graph for tracking the traversal of content resources across nodes, appears to rely on a content resource moving from just one node to another node. In addition, Leber's system relies on a server computer in requesting content, while Burbeck's system clearly and purposefully does not rely on a server computer system in requesting content. "It is improper to combine references where the references teach away from their combination." *In re Grasselli*, 218 USPQ 769, 779 (Fed. Cir. 1983). In addition, combining Leber with Burbeck-Krishnan would appear to make Burbeck's "Methods, systems, and computer program products for tracking content in a transient peer-to-peer

networking environment" unworkable as disclosed and intended. "If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Furthermore, combining Leber with Burbeck-Krishnan would appear to drastically change the principle of operation of Burbeck's disclosed system. "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious." *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). Thus, one of ordinary skill would not have combined the teachings of Burbeck-Krishnan with the teachings of Leber in the manner proposed by the Examiner. Accordingly, the Examiner has failed to establish a *prima facie* case of obviousness.

Thus, for at least the reasons presented above, the rejection of claim 8 is not supported by the cited art and removal thereof is respectfully requested. Similar remarks as those above regarding claim 8 also apply to claim 18.

The Examiner rejected claim 15 under 35 U.S.C. § 103(a) as being unpatentable over Burbeck, Leber and further in view of Saulpaugh et al. (U.S. Publication 2004/0122903) (hereinafter "Saulpaugh"). Since the rejection has been shown to be unsupported for the independent claims, a further discussion of these rejections is not necessary at this time.

The Examiner rejected claims 24 and 32 under 35 U.S.C. § 103(a) as being unpatentable over Burbeck, Krishnan and further in view of Saulpaugh. Since the rejection has been shown to be unsupported for the independent claims, a further discussion of these rejections is not necessary at this time.

Applicants also assert that the rejection of numerous ones of the dependent claims is further unsupported by the cited art. However, since the rejections have been shown to

be unsupported for the independent claims, a further discussion of the dependent claims is not necessary at this time.

CONCLUSION

Applicants submit the application is in condition for allowance, and an early notice to that effect is respectfully requested.

If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5681-08300/RCK.

Respectfully submitted,

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